

R E M A R K S

Careful review and examination of the subject application are noted and appreciated. Please add new claims 22-24.

SUPPORT FOR THE CLAIM AMENDMENTS

Support for the claim amendments may be found in the specification, for example, on page 13 line 13-20 page 14 lines 8-14, page 15 lines 1-19 and FIGS. 6-8, as originally filed. Thus, no new material has been added.

CLAIM REJECTIONS UNDER 35 U.S.C. §103

The rejection of claims 1-6, 9-13, 15, 16 and 18 under 35 U.S.C. §103(a) as being unpatentable over Vogel, US Pub. No. 2003/0145320 in view Arora, US Pub. No. 2004/0114049, and Linzer '102 has been obviated in part by amendment, is respectfully traversed in part, and should be withdrawn.

The rejection of claim 7 under 35 U.S.C. §103(a) as being unpatentable over Vogel in view of Arora, Linzer and McGee et al. (hereafter McGee), US Pub. No. 2003/0117530, has been obviated in part by amendment, is respectfully traversed in part, and should be withdrawn.

The rejection of claim 19 under 35 U.S.C. §103(a) as being unpatentable over Vogel in view of Arora, Linzer and Hua et al. (hereafter Hua), US Pub. No. 2004/0161154, has been obviated in

part by amendment, is respectfully traversed in part, and should be withdrawn.

The rejection of claims 20 and 21 under 35 U.S.C. §103(a) as being unpatentable over Vogel in view of Arora, Hua and Wright et al., US Pub. No. 2005/0010944 (hereafter Wright) has been obviated in part by amendment, is respectfully traversed in part, and should be withdrawn.

Vogel concerns a commercial detector (Title). Arora concerns a system for detecting aspect ratio and method thereof (Title). Linzer concerns a digital video compressor with border processor (Title). McGee concerns family histogram based techniques for detection of commercials and other video content (Title). Hua concerns learning-based automatic commercial content detection (Title). Wright concerns a method and apparatus for detecting time-compressed broadcast content (Title).

Claims 1, 10, 16 and 20 are independently patentable over the cited references. Claim 1 provides (i) reading a first of the frames from a buffer directly to an analyzer, (ii) reading a second of the frames from the buffer directly to the analyzer and (iii) that the video signal carries a content comprising a sequence of frames. Claims 10, 16 and 20 provide similar language. The Office Action asserts that the claimed video signal is present at the antenna 24 of Vogel and the claimed generation of the first parameters and generation of the second parameters are performed by

the feature extractor 33 and the feature extractor 34 of Vogel. As such, the proposed combination of Vogel, Linzer and Arora does not appear to teach or suggest all of the claim limitations.

In particular, Vogel appears to be silent regarding (i) the antenna 24 feeding the video signal into a buffer and (ii) both feature extractors 33 and 34 reading directly from the buffer. Even if a buffer were added to store the signals 31 and 32 of Vogel, the signals 31 and 32 of Vogel are (i) not both received through the antenna 24 and thus not the same video signal and (ii) do not contain the same content. Per the abstract, Vogel relies on the difference in content between the signals 31 and 32 to determine when commercials are present. Therefore, Vogel, Arora and Linzer, alone or in combination, do not appear to teach or suggest reading a first of the frames from a buffer directly to an analyzer, reading a second of the frames from the buffer directly to the analyzer and that the video signal carries a content comprising a sequence of frames, as presently claimed.

Claim 1 further provides that (i) the second frame follows the first frame in the content by a fixed temporal distance and (ii) the predetermined threshold determines if the first frame and the second frame are part of an unbroken segment in the content. Claims 10 and 16 provide similar language. The Office Action asserts that "the reset threshold determines if the first and the second frames are the same using a comparator which tell if

it is part of an unbroken segment such as part of a program material." In contrast, determining if a first frame in the signal 31 is the same or not as a second frame in the signal 32 of Vogel does not appear to tell anything about whether the first frame and the second frame are part of an unbroken segment in a content. As such, the proposed combination of Vogel, Arora and Linzer does not appear to teach or suggest all of the claim limitations.

In particular, if the comparator 36 of Vogel determines that the first frame in the signal 31 is the same as the second frame in the signal 32, the comparator 36 may conclude that the first frame and the second frame were, at one time, the same frame. If so, the second frame in the signal 32 does not follow the first frame in the content by a fixed temporal distance, as claimed. If the comparator 36 determines that the first frame in the signal 31 is different than the second frame in the signal 32, then comparator 36 may conclude that the first frame is part of a first commercial and the second frame is part of a different second commercial. If so, the first frame and the second frame are not part of the same content, as claimed. Furthermore, the Office Action asserts that the delay between the first frame in the signal 31 and the second frame in the signal 32 "could be any time delay." In contrast, an arbitrary delay between two frames in two signals does not appear to indicate a fixed delay in a single signal. Therefore, Vogel, Arora and Linzer, alone or in combination, do not

appear to teach or suggest that the second frame follows the first frame in the content by a fixed temporal distance and the predetermined threshold determines if the first frame and the second frame are part of an unbroken segment in the content.

Claim 1 further provides generating a signal indicating (i) the first video type when the comparison value is greater than a predetermined threshold and (ii) the second video type when the comparison value is less than the predetermined threshold. Claim 10 provides similar language. The Office Action alleges that an output signal of a comparator 36 of Vogel is similar to the claimed signal. However, paragraph 0034, lines 10-11 of Vogel state that the "output of comparator 36 therefore indicates whether the signals are the same or not." Paragraph 0009, lines 5-9 of Vogel state that "if at least one of the programs differs from another received program by more than a preset threshold, generate a signal indicating presence of a commercial." Nothing in Vogel mentions that the signals 31 and 32 are of a first video type or a second video type as indicated by the output of the comparator 36. Both input signals of Vogel could be of the same type and the output of the comparator 36 could indicate that both signals 31 and 32 are the same when (i) both signals carry the same program and (ii) both are signals carry the same commercial. The output signal of comparator 36 of Vogel appears to be ambiguous regarding a video type when the signals 31 and 32 are the same. Likewise, Vogel

appears to teach that the output signal from the comparator 36 indicated that both signals 31 and 32 are different when (i) the program/commercial in one signal is time-skewed relative to the other signal and (ii) both signals carry different commercials. Thus, the output signal of comparator 36 of Vogel appears to be ambiguous regarding a video type when the signals 31 and 32 are different. Vogel appears to rely on the TV schedule data 35 to resolve the ambiguity. Therefore, Vogel, Arora and Linzer, alone or in combination, do not appear to teach or suggest generating a signal indicating (i) the first video type when the comparison value is greater than a predetermined threshold and (ii) the second video type when the comparison value is less than the predetermined threshold, as presently claimed. As such, the claimed invention is fully patentable over the cited references and the rejections should be withdrawn.

Claim 10 further provides a controller connected bidirectionally between the first detector circuit and the second detector circuit. The Office Action asserts the claimed controller is similar to the lines between the feature extractors 33/34 and the comparator 36 of Vogel. In contrast, FIG. 3 of Vogel indicates that the lines are unidirectional. Therefore, Vogel, Arora and Linzer, alone or in combination do not appear to teach or suggest a controller connected bidirectionally between the first detector circuit and the second detector circuit, as presently claimed.

Claims 10 further provides that the controller controls the first detector circuit and the second detector circuit. The Office Action asserts that "the output lines from extractors 33 and 34 do **control the flow of data** from the first detector/feature extractors 33 and 34 and these output lines does **control the flow of data** into the second detector/comparator 36 by being the means/controller for correspondence of instructions and information between the two components." (Emphasis added) In contrast, the claim is for the controller to **control the first detector circuit** and **control the second detector circuit**, not the flow of data. Therefore, *prima facie* obviousness has not been established. As such, the Office is respectfully requested to either (i) provide evidence in the form of a reference and/or an affidavit under 37 CFR 1.104 showing that one of ordinary skill in the art would consider the lines leaving feature extractors 33 and 34 controlling all of the feature extractor 33, the feature extractor 34 and the comparator 36 or (ii) withdraw the rejection to claim 10.

Claim 16 further provides generating a signal to indicate (ii) a presence of the scene transition between the commercial and the program when at least one of the first size and the first position of the first truly active region is not substantially similar to a corresponding at least one of the second size and the second position of the second truly active region. Assuming, *arguendo*, that the teachings of Linzer are obvious to combine with

Vogel and Arora (for which Applicant's representative does not necessarily agree), the proposed combination would not be able to detect the presence of a scene transition as presently claimed. In particular, the alleged teaching of Linzer to blacken all of the encoded inactive region would result in the size and the position of all truly active regions, both program and commercial, to be the same as the encoded active region. Since Linzer would cause commercials and programs to have the same size and position as transmitted, there are no differences in size or position between the frames for the proposed combination of Vogel, Arora and Linzer to detect. Therefore, Vogel, Arora and Linzer, alone or in combination, do not appear to teach or suggest generating a signal to indicate a presence of the scene transition between the commercial and the program when at least one of the first size and the first position of the first truly active region is not substantially similar to a corresponding at least one of the second size and the second position of the second truly active region, as presently claimed. As such, claim 16 is fully patentable over the cited references and the rejection should be withdrawn.

Claim 20 further provides generating a plurality of first parameters defining a signature of a first segment of a plurality of program segments independent of a content of the first segment. In contrast, the Office Action cites paragraph 0025, lines 16-18 and paragraph 0035, line 8-11 in the rejection:

While the received video stream is still provided at the first, or standard aspect ratio, **the video content aspect ratio can change**, such as due to a commercial or change in programming. (Emphasis added).

...

In one embodiment, the aspect ratio detector 435 compares portions of the video that change to determine **if video content within the video received has a different aspect ratio** than the standard aspect ratio." (Emphasis added)

In contrast, both cited paragraphs of Arora appear to indicate that it is the change in video content that causes the change in the aspect ratio. Hence, Arora appears to teach that the aspect ratio is content dependent. Therefore, Vogel, Hue, Arora and Wright, alone or in combination, do not appear to teach or suggest generating a plurality of first parameters defining a signature of a first segment of a plurality of program segments independent of a content of the first segment, as presently claimed. As such, claim 20 is fully patentable over the cited references and the rejection should be withdrawn.

Claims 2-7, 9, 11-13, 15, 18, 19 and 21 depend, either directly or indirectly, from claims 1, 10, 16 or 20, which are now believed to be allowable. As such, the dependent claims are fully patentable over the cited references and the rejections should be withdrawn.

Claims 22-24 depend, either directly or indirectly, from claim 20, which is now believed to be allowable. As such, the new claims are fully patentable over the cited references and should be allowed.


Accordingly, the present application is in condition for allowance. Early and favorable action by the Examiner is respectfully solicited.

The Examiner is respectfully invited to call the Applicant's representative between the hours of 9 a.m. and 5 p.m. ET at 586-498-0670 should it be deemed beneficial to further advance prosecution of the application.

If any additional fees are due, please charge Deposit Account No. 12-2252.

Respectfully submitted,

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